

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-22 (canceled).

23. (currently amended): A method for producing a thermally processed image recording material comprising a silver salt of an organic acid, a reducing agent for silver ions and a binder on at least one surface of a support, which comprises:

(a) ~~preparing~~providing a dispersion of grains of silver salt of an organic acid which have been prepared by reacting a solution containing silver ions and a solution containing an alkali metal salt of an organic acid in sealed mixing means and which ~~comprises~~ have been prepared by supplying the solution containing silver ions into a reaction field solution before being introduced into the sealed mixing means, and supplying the solution containing an alkali metal salt of an organic acid into the reaction field solution or sealed mixing means to which the solution containing silver ions has been supplied; and

(b) applying a coating solution containing the dispersion of grains of silver salt of an organic acid prepared by step (a), a reducing agent for silver ions and a binder to form an image-forming layer on at least one surface of a support.

24. (original): The method for producing a thermally processed image recording material according to Claim 23, wherein, in step (a), Reynolds number of the solution containing silver ions is in the range of 500-20000 when the solution containing silver ions is supplied to the reaction field solution.

25. (original): The method for producing a thermally processed image recording material according to Claim 23, wherein step (b) comprises applying a coating solution containing an aqueous dispersion of the grains of silver salt of an organic acid prepared by step (a) on at least one surface of the support.

26. (original): The method for producing a thermally processed image recording material according to Claim 25, wherein the coating solution contains a photosensitive silver halide and a polymer showing an equilibrated moisture content of 2 weight % or less at 25°C and relative humidity of 60% in the form of latex as the binder, and 30 weight % or more of the solvent of the coating solution consists of water.

27. (currently amended): A method for producing a thermally processed image recording material comprising a silver salt of an organic acid, a reducing agent for silver ions and a binder on at least one surface of a support, which comprises:

(a) ~~preparing~~providing a dispersion of grains of silver salt of an organic acid which have been prepared by mixing a solution containing silver ions and a solution containing an alkali metal salt of an organic acid to conduct a reaction in sealed mixing means and removing by-product salts contained in the reaction mixture by filtration through an ultrafiltration membrane during or after the reaction; and

(b) applying a coating solution containing the dispersion of grains of silver salt of an organic acid prepared by step (a), a reducing agent for silver ions and a binder to form an image-forming layer on at least one surface of a support.

28. (original): The method for producing a thermally processed image recording material according to Claim 27, wherein, in step (a), at least a part of a mixture obtained after the reaction of the solution containing silver ions and the solution containing an alkali metal salt of an organic acid mixed in the sealed mixing means is circulated and returned to the sealed mixing means.

29. (original): The method for producing a thermally processed image recording material according to Claim 27, wherein, in step (a), at least one kind of dispersing agent is added before starting the reaction or before finishing the purification utilizing an ultrafiltration membrane.

30. (original): The method for producing a thermally processed image recording material according to Claim 29, wherein, in step (a), a nonionic macromolecular dispersing agent having a molecular weight 5-50 times larger than a fractional molecular weight of the ultrafiltration membrane is used as the dispersing agent.

31. (original): The method for producing a thermally processed image recording material according to Claim 30, wherein, in step (a), the nonionic macromolecular dispersing agent is used at a concentration of 0.1-30 weight % of solid content of the silver salt of an organic acid.

32. (original): The method for producing a thermally processed image recording material according to Claim 29, wherein, in step (a), at least one of polyvinyl alcohol, polyvinylpyrrolidone, hydroxyethyl cellulose and hydroxypropyl cellulose is used as the dispersing agent.

33. (original): The method for producing a thermally processed image recording material according to Claim 27, wherein, in step (a), the by-product salts are removed by ultrafiltration in which 2- to 20-fold constant volume dilution is attained, and then the dispersion is concentrated to a concentration of 10-50 weight %.

34. (original): The method for producing a thermally processed image recording material according to Claim 27, wherein step (b) comprises applying a coating solution containing an aqueous dispersion of the grains of silver salt of an organic acid prepared by step (a) on at least one surface of the support.

35. (original): The method for producing a thermally processed image recording material according to Claim 34, wherein the coating solution contains a photosensitive silver halide and a polymer showing an equilibrated moisture content of 2 weight % or less at 25°C and relative humidity of 60% in the form of latex as the binder, and 30 weight % or more of the solvent of the coating solution consists of water.

36. (currently amended): A method for producing a thermally processed image recording material comprising a silver salt of an organic acid, a reducing agent for silver ions and a binder on at least one surface of a support, which comprises:

(a) providing an aqueous dispersion of grains of silver salt of an organic acid prepared by reacting a solution containing silver ions and a solution containing an alkali metal salt of an organic acid to obtain silver salt of an organic acid, dispersing the silver salt of an organic acid by a high pressure homogenizer or high speed rotary homomixer in the presence of

a dispersing agent, and removing by-product salts by ultrafiltration after or during the dispersing operation ~~to obtain an aqueous dispersion of grains of silver salt of an organic acid~~; and

(b) applying a coating solution containing the aqueous dispersion of grains of silver salt of an organic acid prepared in step (a), a reducing agent for silver ions and a binder to form an image-forming layer on at least one surface of a support, ~~using the aqueous dispersion of grains of silver salt of an organic acid prepared by step (a)~~.

38. (original): The method for producing a thermally processed image recording material according to Claim 36, wherein, in step (a), concentration of the grains of silver salt of an organic acid is 1-10 weight % immediately after the reaction.

39. (original): The method for producing a thermally processed image recording material according to Claim 36, wherein, in step (a), after the by-product salts are removed by the ultrafiltration, concentration operation is performed by the ultrafiltration.

40. (original): The method for producing a thermally processed image recording material according to Claim 36, wherein, in step (a), after electric conductivity reached within the range of from 20 $\mu\text{S}/\text{cm}$ to less than 300 $\mu\text{S}/\text{cm}$ as a result of the removal of the by-product salts by the ultrafiltration, the dispersion is concentrated to a concentration of 10-70 weight % by the ultrafiltration.

41. (original): The method for producing a thermally processed image recording material according to Claim 36, wherein step (b) comprises applying a coating solution containing an aqueous dispersion of the grains of silver salt of an organic acid prepared by step (a) on at least one surface of the support.

42. (original): The method for producing a thermally processed image recording material according to Claim 41, wherein the coating solution contains a photosensitive silver halide and a polymer showing an equilibrated moisture content of 2 weight % or less at 25°C and relative humidity of 60% in the form of latex as the binder, and 30 weight % or more of the solvent of the coating solution consists of water.